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File: USPT

Oct 12, 1999

US-PAT-NO: 5964344

DOCUMENT-IDENTIFIER: US 5964344 A

TITLE: Wafer storage box and method for preventing attachment of dust caused by static electricity on a wafer storage box

DATE-ISSUED: October 12, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hatada; Hirotaka	Kumamoto			JPX

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
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APPL-NO: 9/ 061169 [PALM]

DATE FILED: April 16, 1998

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	9-099147	April 16, 1997

INT-CL: [6] B65 D 85/48

US-CL-ISSUED: 206/205; 206/710

US-CL-CURRENT: 206/205; 206/710

FIELD-OF-SEARCH: 206/454, 206/710, 206/711, 206/712, 206/205, 206/213.1, 206/316.1, 206/832

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

☐ Search Selected☐ Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5743409</u>	April 1998	Nakahara et al.	206/710
<input type="checkbox"/>	<u>5788082</u>	August 1998	Nyseth	206/711

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 248 925	December 1987	EPX	
0 684 631	November 1995	EPX	
1-137536	September 1989	JPX	
4-7855	January 1992	JPX	
4-61122	February 1992	JPX	

ART-UNIT: 378

PRIMARY-EXAMINER: Ackun; Jacob K.

ATTY-AGENT-FIRM: Young & Thompson

ABSTRACT:

A carrier 2 that holds a wafer 3 is shut off from the outside environment by causing a box 1 and a box plate 4 to come into intimate physical contact by means of a box plate joiner 7. When this is done, a switch 9 of a electricity charger/discharger 5 is set to a first position so as to charge electricity to the box 1 via power supply circuit 10, causing dust within the box 1 to be attached to the inner walls 1a of the box 1 by electrostatic attraction. Thereafter, even if the box plate 4 that was joined to the box 1 is removed from the electricity charger/discharger 5, because the electricity of the box 1 remains, the electrostatic attraction effect persists. Thus, once dust is attracted, it remains attached to the inner walls 1a of the box 1.

6 Claims, 4 Drawing figures